

A NEW THYNNID WASP FROM NEW CALEDONIA.

BY T. D. A. COCKERELL.

University of Colorado, Boulder, Colo.

On the occasion of our recent (1928) visit to New Caledonia, my wife and I collected many interesting insects, but perhaps none more interesting than a wasp of the family Thynnidæ now described.

Eirone superstes n. sp.

♂. Length about 12 mm.; slender, variegated with black, red and yellow, the surface shining; head rather thick, circular seen from in front, the orbits slightly diverging below; clypeus, rather broad bands along inner orbits, and mandibles except apex, yellow flushed with red, the mandibles ferruginous subapically, very stout, with a long oblique cutting edge, and a small but well defined inner tooth; clypeus obtusely angulate in middle, both it and the mandibles furnished with long glistening yellowish hairs; maxillary palpi brown, slender, the three last joints subequal, and decidedly elongated; front shining with few scattered punctures; ocelli in a high triangle; cheeks with a yellow band behind the eyes, ending about two-thirds of the way up, but behind this a broad pale red area, which sends a pointed projection far up on the occiput; antennae slender, long enough to reach metathorax, the scape reddish yellow in front, the flagellum black; a pair of large tubercles just above and between antennae bright yellow; thorax black marked as follows: a yellow marginal band on prothorax briefly broken sublaterally; crescentic yellow mark just in front of tegulæ; large rather footshaped yellow area, suffused with red, on mesopleura; two reddish-yellow stripes

on hind part of disc of mesothorax; large yellow spots on axillæ; scutellum and postscutellum pale yellowish red; the bulging impunctate metathorax pale ferruginous; parapsidal furrows deep; tegulæ testaceous with a large yellow spot; wings strongly reddened, blackish at apex; stigma and nervures dull ferruginous; second cubital cell with sloping sides, but still very broad above, receiving recurrent nervure at middle; third cubital receiving second recurrent far from base, but distinctly before middle; anterior coxæ red in front, the coxæ otherwise black; femora, tibiae and tarsi entirely bright ferruginous; abdomen narrow, subcylindrical, the margins of the segments with stiff black hairs, but apex with thin pale hair; first, fifth and sixth and base of seventh segment black above and below; second, third, fourth, and apical segment except base bright orange-ferruginous above and below; apex truncate, unarmed.

New Caledonia: Bourail, May 22 (W. P. Cockerell). Type for the present in my collection. Allied to *E. obtusidens* Turner, 1919, from Noumea, New Caledonia. Dr. James Waterston kindly examined the type of *E. obtusidens*, in order to confirm certain points of distinction. He reports as follows:

(1) Clypeal hairs. The longest and strongest blackish brown, the finer ones, especially those near edge, much paler.

(2) Clypeus with nearly straight edge, but in the middle one fourth or one-fifth produced into a blunt triangular tooth.

(3) Anterior coxæ shining black.

(4) Abdomen with only tergites 2 to 4 reddish; sternites are black or blackish.

(5) Apex of abdomen; tergite black, with reddish bristles, sternites narrowly reddish edged at apex.

(6) Abdominal tergites 2 to 5 fringed with short stiff black bristles, on 2 to 4 these bristles extend beyond the

hind edge about one-third of their length, on 5 to nearly half, i. e., relatively longer.

(7) Apical joints of maxillary palpi are in my opinion elongate, the last obviously a little more slender than the penultimate.

Dr. Waterston thinks Turner's species is probably correctly placed in *Eirone*, but the abdomen is a little unusual. The characters of the mandibles, clypeus and palpi may perhaps be considered to indicate at least a distinct subgenus. My species is allied to Turner's, but evidently distinct.

In 1922 Montet described a *Spilothynnus thalluse*, said to occur in New Caledonia. Miss Sandhouse has kindly copied the description for me, and I find that the species was based on two females, 8.5 mm. long, one said to be from Australia, the other from New Caledonia. There is apparently no history with either, and Montet remarks that there may be an error in the indication of localities. The Australian specimen, of which details are figured, is herewith designated as the type. *Spilothynnus* is a South American genus with spotted abdomen.

If we disregard Montet's species as too uncertain, it still remains true that New Caledonia has two species of Thynnidæ which are endemic, and abundantly distinct from anything known in Australia. There is also a Mutillid (*Mutilla caledonica* André), found at Noumea in New Caledonia.

These Hymenoptera, having wingless females, are doubtless relics of ancient continental connections, probably north-westward. There are Thynnidæ in New Britain, the Solomon Is. (*Thynnus barbarus* Turner), New Guinea, the Aru Is., Ceram, Celebes, and north to the Philippine Is. (*Thynnus luzonicus* Turner; *T. bakeri* Rohwer). There is a species (*Rhagigaster novaræ* Sauss.) said to come from New Zealand, but Tillyard in his recent work credits none to that country. *Eirone* has 33 known species, in addition to the two from New Caledonia. With the exception of the latter, it is strictly an Australian genus.

The Thynnidæ, also well represented in South America, illustrate the discontinuous distribution of ancient groups; and the fact that the New Caledonia species can be placed (if not quite comfortably) in an Australian genus indicates the great antiquity of the general type. The family is probably as old as the mesozoic. New Caledonia has doubtless, during its long history, experienced many changes of level, and there are reasons for thinking that it has at times been reduced to a much smaller area, and at other times connected with the Loyalty Islands, which have a very similar fauna. West and South of New Caledonia is a great submarine bank, extending to New Zealand, and including near its western edge Lord Howe Island. In Lord Howe Island we have a very remarkable assemblage of land snails, including the genus *Placostylus* and (as Mr. T. Iredale pointed out to me) *Platyrhytida*; characteristic New Caledonia genera. North of Lord Howe Island are reefs dangerous to shipping, representing former islands. As we passed one of them, on which the wreck of a large vessel could be seen, it was impossible to avoid a feeling of disappointment at the loss of the interesting fauna and flora which must have flourished there in early times. Even in Lord Howe Island, where so many interesting relics survived, the fauna is rapidly disappearing as the result of the accidental introduction of rats.

I have recently described a bee (*Paracolletes philonesus* Ckll.) collected by A. R. McCulloch on Lord Howe Island, and now in the Australian Museum. It belongs to an Australian genus, which also occurs in New Zealand, but not in New Caledonia. The female is about 9.5 mm. long, and runs in my table near *P. metallescens* Ckll. but has the abdomen dull, not metallic, hardly punctured. The wings are brownish; second cubital cell broad at base, greatly contracted above. It may be that *Paracolletes* will yet be found in the mountains of New Caledonia; in Australia it is richly developed in the temperate portion, but there is a small species (*P. tropicalis* Ckll.) on Melville Island, off the north coast.